Course Objectives/Course Outline
Spokane Community College

Course Title: Electronics Math II
Prefix and Course Number: ELECT 123

Course Learning Outcomes:
By the end of this course, a student should be able to:

- Explain Pythagorean Theorem and Trigonometric Functions
- Solve logarithmic equations and equations with complex numbers
- Convert numbers to and from Decimal, Binary, Octal, and Hexadecimal systems
- Calculate AC circuit parameters

Course Outline:

I. Course Overview

II. Complex Numbers
   A. Imaginary and Complex Numbers
   B. Addition and Subtraction
   C. Multiplication and Division

III. The Right Triangle
   A. Pythagorean Theorem
   B. Trigonometric Functions
   C. Trigonometric Equations

IV. Math for AC Electronics
   A. Sine Wave
   B. Instantaneous and RMS Values
   C. Phasors
   D. Polar to Rectangular conversions
   E. AC Circuit calculations
   F. Filters

V. Logarithms in Electronics
   A. Logarithms
   B. Logarithmic Equations

VI. Number Systems
   A. Binary
   B. Octal
   C. Hexadecimal